

REMARKS/ARGUMENTS

Claims 1-4, 6-7, 16, 18 and 20-21 are pending. Claims 1, 16, 18 and 20 have been amended. No new matter has been introduced. Reexamination and reconsideration of the present application is respectfully requested.

Interview Summary

In a telephone conversation on March 15, 2007, the Examiner informed the Applicant that the "a" in claim 16 should be "the" to clarify the nature of the material claimed. In the same conversation, the Examiner also suggested that a culturing step be included in the independent claims.

Claim Rejections

Claims 1-4, 6-7, 16, 18 and 20-21 are pending. Claims 1, 16, 18 and 20 have been amended.

Claims 1, 18 and 20 have been amended to correct a typographical error, changing "EdTA" to "EDTA," which the Examiner brought to the Applicant's attention. The Applicant thanks the Examiner for bringing this matter to the Applicant's attention.

35 U.S.C. §112, first and second paragraphs

The Examiner rejected claims 1-4, 6-7, 16, 18 and 20-21 for indefiniteness under 35 U.S.C. 112, first and second paragraphs. The Examiner states that claims 1, 16, 18 and 20 are missing a step that would facilitate bioconversion in the process as claimed. The Applicant has amended the cited claims to recite that the specified strains are introduced into the into the aquarium *and maintained* in an amount sufficient to alleviate or prevent the accumulation of ammonia in the aquarium. Support is shown in the specification as originally filed.

Example 9 describes the experimentation regarding the claimed bacterial strains and the conditions found conducive to maintain each strain's growth or culture. The Applicants have discovered through their experimentation that oxidization of ammonia to nitrate occurs immediately upon introducing the bacterial strains into an aquarium setting and that this oxidization continues over time, as shown in the examples and the enclosed attachment ("Ammoniachloride/Nitrite kinetics in a breeding tank"). The data shows that the bacteria

catalyzed the formation of the intermediate molecule even if they are not dividing. In tankfarms there was dramatical ammoniachloride consumption without cell propagation.

In addition, Examples 11-16 show that the longer the introduced amount of bacteria is maintained in the aquarium, the more significant the bioconversion until the ammonia is alleviated. Examples 11-16 further disclose the experimental data obtained from testing the claimed processes in various aquaria settings and the resulting oxidization of ammonia to nitrite as the bacterial strains are maintained in the aquaria system into which they are introduced. The examples provide step-by-step description of how to obtain the desired strains and illustrate how to prevent ammonia accumulation under different conditions within man-made mediums. The level of skill in the art is high and the steps needed to use the invention are common in the art. Thus, one of skill in the art would recognize how to introduce, provide and maintain the strains in each of the described environments and disclosed conditions.

The Examiner also states that claim 16 is confusing in the recitation of "comprises a 16S rDNA" because the nature of the material is not clearly defined. The Applicant has amended claim 16 to recite "the 16S rDNA nucleotide sequence set forth in SEQ ID NO:1" to clarify the nature of the material.

In light of the above considerations, Applicants respectfully submit that the amended claims now meet the requirements of 35 U.S.C. 112, first and second paragraphs. It is therefore respectfully requested that the Examiner's above rejections be withdrawn.

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Conclusion


The Applicant respectfully requests the allowance of the claims which are now pending. If the Examiner would like to discuss any further matters relating to this application, the undersigned attorney can be reached at the Los Angeles telephone number (213) 488-7100.

Please charge any fees associated with the submission of this paper to Deposit Account Number 03-3975 (ref. 81289-294309). The Commissioner for Patents is also authorized to credit any over payments to the above-referenced Deposit Account.

Respectfully submitted,

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Attachment

Ammoniumchloride / Nitrite kinetics in a breeding tank

